



ORIGINAL ARTICLE

# Progress in the treatment of sudden deafness

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**Abstract:** In recent years, the incidence of sudden deafness has a tendency to rise. Most scholars believe that the cause of the disease are virus infection, lymph fluid and cochlear circulation dysfunction and so on. The above several etiology may play a role in the process of sudden deafness, it is hard to isolate one of the causes, so there is no definite treatment of sudden deafness, the treatments of sudden deafness are based on the conjectural cause, lacking pertinence. This paper summarize the treatments of sudden deafness, in order to explore better ways to treat sudden deafness and to promote the development of clinical research.

**Key words:** Sudden Deafness, Treatment

Sudden deafness and sudden sensorineural hearing loss, no clear reason refers to the sudden sensorineural hearing loss, patients can be in a few minutes, hours or less than 3 D, hearing loss in at least 2 frequency. On the decline in more than 20dB, the majority of patients in unilateral. There is bilateral disease, Department of ENT emergency. The exact etiological factors of sudden deafness is not clear, there is no standard regimens, but the treatment of sudden deafness is mainly to comprehensive treatment. The comprehensive review of the treatment of sudden deafness.

## 1. drug therapy

### 1.1 vasoactive drugs treatment

Research shows that cochlear ischemia caused by the mechanism of the national MRI examination part of cochlear inner ear of patients with sudden deafness sudden deafness caused by the discovery of high signal disappears, this may be due to bleeding, so that patients with sudden deafness due to disease may be due to inner ear hemorrhage. The clinical commonly used vascular amplification: Ginkgo biloba extract, Salvia miltiorrhiza agent Xingding, can be one or more. The curative effect of Ginaton treatment of sudden deafness has a better therapeutic effect than low molecular dextran, energy mixture, clinical preference in sudden deafness treated with Ginaton injection, adverse reaction to sudden deafness The vasoactive drug therapy: pruritus, hypertension, arrhythmia is the main adverse reaction, but d no

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serious adverse events. Because of the above basic research from a single study of uneven quality, the credibility of the conclusions. There is still a large number of clinical trials.

### 1.2 hormone therapy

The clinical study showed that in dexamethasone group than non hormone group, the onset time of dexamethasone (7 days) is particularly significant, no vertigo symptoms of SUD patients with dexamethasone den deafness curative effect in the treatment of sudden deafness, the sooner better curative effect. Although the effect of steroid hormone and achieved good body in the treatment of sudden deafness, but the use of systemic hormone have side effects and contraindications, hormone concentration can cause platelet height increase, increase the risk of thrombosis, but also cause gastric ulcers, osteoporosis, anger, femoral head necrosis and other complications, increase in diabetes and hypertension patients with primary The risk of.96 cases of sudden deafness patients in ASE treatment group, a group on the basis of routine treatment, the treatment group in the intravenous injection of dexamethasone, B group on the basis of conventional therapy in the intratympanic injection of dexamethasone intratympanic dexamethasone injection in the treatment of sudden deafness, good effect, high safety, is the treatment of sudden deafne good selection of SS. in addition to hormone treatment of sudden deafness after ear, hormone injection is a very effective method, and system and intratympanic administration compared to side effects after two ears less dosage, compared with dexamethasone, methylprednisolone and receptor affinity is stronger and more breathable, methylprednisolone group The frequency of hearing improvement is obviously better than that of group Dexamethasone. Therefore, the injection of methylprednisolone after the treatment of sudden deafness can be used as a hormone in the treatment of sudden deafness, which is more effective and has less side effects

### 1.3 neurotrophic agents treatment

Nerve growth factor is a strong biological activity of the protein, auditory epithelium, auditory neuron cells mature, proliferation and differentiation and activation of the essential factor, but also in the repair of nerve injury, and plays an important role in neuronal plasticity and survival function of the resurrection process, the clinical treatment of sudden deafness common neurotrophic drugs including nerve growth factor, three cytidine triphosphate, brain protein hydrolysate etc. Li Yang through the process column The patients with deafness divided into nerve routine treatment and conventional treatment + treatment rats, the results showed that the treatment + rat nerve in patients with normal total effective rate was 85% (34/40), and conventional treatment for patients with the total effective rate was 70.6% (24/34), the clinical effect of sudden deafness patients in the conventional treatment based on the use of mouse nerve growth factor in the treatment of sudden deafness is better than conventional treatment. The rat nerve growth factor as an assistant drug for the treatment of sudden deafness, can improve the curative effect of treatment of other auxiliary drug deafness, mouse nerve growth factor can significantly improve short-term or frequency pure tone air The hearing threshold level (pure tone average, PTA) in patients with low symptoms. For such patients, should be recommended rat nerve growth factor treatment. For longer duration and higher levels of PTA patients, do not promote the mouse nerve growth factor treatment. Through the research on Jing Yang mouse nerve growth factor in the treatment of different ways of administration the curative effect of sudden deafness, that mouse nerve growth factor in the ear to the treatment of sudden deafness, the effect is obvious, which can guarantee the high drug concentration in the ear, and can reduce the side effects of intramuscular injection.

## 2. physiotherapy

Hyperbaric oxygen therapy can achieve the restoration of combined effect of electroacupuncture and conventional medicine in the cochlea of oxygen pressure. Hyperbaric oxygen therapy can promote the clinical curative effect of moderate and severe deafness deafness in patients with acute unilateral deafness, failure in the traditional treatment, the

use of hyperbaric oxygen therapy is a treatment option. There are also some side effects, but the sudden hyperbaric oxygen therapy deafness, such as barotrauma, tympanic membrane sinusitis. Thus, whether the choice of hyperbaric oxygen in the treatment of ENT patients with sudden deafness, should be in the situation of eustachian tube opening into consideration, in the course of treatment should also take various measures to reduce the adverse reaction rate of E. With the pace of life is increasing quickly, the incidence of sudden deafness is more and more high, the occurrence mechanism of sudden deafness, put forward higher requirements for the research, formulate and improve diagnostic criteria, treatment methods to help clinicians improve improve the curative effect of sudden deafness, is our research direction in the future.

## **References**

1. Wang Hongbo, Chang Yan, Jiang Liyan. Extract of Ginkgo Biloba Leaves Injection in the treatment of sudden deafness and clinical study of [J]. China Journal of clinical pharmacology, 2016, (21): 1946-1949.